

CLAIM AMENDMENTS

1. (Currently Amended) A water treatment apparatus comprising:
an ultraviolet radiation unit radiating ultraviolet light;
an ultraviolet radiation part ~~that is formed into~~ having an elongated tubular configuration, and ~~receives~~ receiving therein ~~an axially extending said~~ an axially extending said ultraviolet radiation unit with a space ~~formed~~ formed between an inner peripheral surface ~~thereof~~ of said ultraviolet radiation part and said ultraviolet radiation unit to pass ~~therethrough~~ therethrough wastewater therethrough; and

an oxidizer mixing part that is disposed adjacent to and upstream of said ultraviolet radiation part, wherein said oxidizer mixing part includes:

a minimum ~~sectional~~ cross-sectional area part ~~that is formed with~~ at an oxidizer suction port for ~~sucking~~ drawing an oxidizer supplied from an oxidizer supply part into wastewater, and ~~is squeezed~~ constricted to a ~~prescribed~~ first cross-sectional area, and

a conical ~~cone~~ part ~~of having~~ having a tapered configuration that expands from said minimum cross-sectional area part to a large passage part ~~of the same~~ having a thickness substantially the same as that of said ultraviolet radiation part.

2. (Currently Amended) The water treatment apparatus according to claim 1, wherein a distance from said minimum cross-sectional area part to said ultraviolet radiation part is no more than 50 cm ~~or less~~.

3. (Currently Amended) The water treatment apparatus according to claim 1, wherein a distance from said minimum cross-sectional area part to a range in which the ~~strength of~~ intensity of ultraviolet light irradiated by said ultraviolet radiation unit ~~becomes~~ has an intensity of at least 100 W/m² or more W/m² is no more than 50 cm ~~or less~~.

4. (Currently Amended) The water treatment apparatus according to claim 1, further comprising a flow passage for drawing ~~the~~ the treated water that has passed said ultraviolet radiation part and returning ~~it~~ the treated water to a location upstream of said minimum cross-sectional area part.

5. (Currently Amended) The water treatment apparatus according to claim 1, wherein said ultraviolet radiation part has a diameter ~~determined in such a manner so~~ determined in such a manner so that the ~~strength of~~ intensity of ultraviolet light has an intensity at said inner peripheral surface ~~becomes~~ of at least 30

In re Appln. of KAMIMURA et al.
Application No. Unassigned

~~w/m² or more~~ W/m².

6. (Currently Amended) The water treatment apparatus according to claim 1, wherein said ultraviolet radiation part has a diameter ~~determined in such a manner so that the strength of ultraviolet light has an intensity at said inner peripheral surface becomes at least 10 % or more of the ultraviolet light strength stronger than at an ultraviolet radiation surface of said ultraviolet radiation unit.~~

7. (Currently Amended) The water treatment apparatus according to claim 1, wherein said ultraviolet radiation part has a radius ~~of between~~ in a range from 2 cm and to 4 cm, inclusive.

8. (Currently Amended) The water treatment apparatus according to claim 1, wherein a distance between said inner peripheral surface and an ultraviolet radiation surface of said ultraviolet radiation unit is ~~between~~ in a range from 5 mm and to 25 mm, inclusive.

9. (Currently Amended) The water treatment apparatus according to claim 1, ~~wherein~~ including a wastewater passage in said ultraviolet radiation part ~~has~~ having a hydraulic diameter ~~of between~~ in a range from 10 mm and to 50 mm, inclusive.

10. (Currently Amended) The water treatment apparatus according to claim 1, wherein said oxidizer ~~comprises either one~~ is selected from the group consisting of an ozone gas, an ozone containing gas, and an ozone water with ozone dissolved in a liquid.

11. (Currently Amended) The water treatment apparatus according to claim 10, wherein the product of a distance D from said inner peripheral surface to an ultraviolet radiation surface of said ultraviolet radiation unit and $[1000e^{\{2.3(290h[O_3G] + 320[O_3L] + 1.86[H_2O_2])\}/100}]^{1.5}$ (where h: a gas holdup, $[O_3G]$: a gaseous phase ozone concentration, $[O_3L]$: a liquid phase ozone concentration, and $[H_2O_2]$: a hydrogen peroxide concentration) is ~~between~~ in a range from 0.01 and to 0.1, inclusive.

12. (Currently Amended) The water treatment apparatus according to claim 10, wherein the concentration of ~~said the ozone gas~~ is at least 100 g/m³(N) or more.